

Tennessee Pollution Prevention Partnership Success Story



GM-Spring Hill
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Resource Management Improvements Reduce Solid Waste

The Member

GM-Spring Hill Manufacturing Facility is a highly integrated automotive manufacturing and assembly complex of about seven million square feet.

Approximately 5,780 Spring Hill team members are involved in producing spaceframe components and body panels, painting vehicles, machining and assembly of engines and transmissions, vehicle assembly, warehousing for retailer parts, and ancillary activities. The facility produces the Saturn VUE, VUE Red Line, VUE Green Line (small sport utility vehicles), Saturn ION, ION Red Line (sedan and coupes), and Ecotec engines (2.0L Turbo, 2.2L and 2.4L 4-cylinder engines).

The Story

Material "waste" from our operations is regarded as potentially useful by-products for reuse or recycling, driving our site to minimize material to be disposed. To support this vision, site goals to reduce non-recycled waste by 3% in 2006 and 15% by 2010 were established from a 2005 baseline, normalized for production levels. Additionally, a stretch goal of zero landfilled waste was adopted in the Powertrain manufacturing area. Importantly, these goals are integrated into formal annual business plans, along with other key business targets related to quality, safety, productivity, cost reduction, and other measures. Progress is reviewed monthly by top leadership and communicated to all team members.

The Success

With mature production and waste management systems, non-recycled waste rates had been reduced to about 7% in year 2005 - a reduction of 57% over the last five years. Meeting the continual improvement challenge for a successful program required a comprehensive and systematic evaluation

of waste management practices, using a combination of reduction measures, such as:

- Using scrap plastic from interior systems manufacturing as a raw material in molding rocker panels,
- Finding a local scrap metal vendor to recycle camshaft metal grinding fines/swarf,
- Changing to air filters with metal frames, now recyclable with scrap metal,
- Auditing trash compactors to assess additional recycling opportunities,
- Re-evaluating waste collection logistics, adding recycling collection containers, and moving recycling equipment,
- Improved awareness, training, and communications, i.e. signage and visual aids, monthly scorecard reviews with leadership, and additional interaction with engineering and production teams and contractors,
- Investigating alternative management methods, i.e. composting, waste to energy, although they were determined not to be feasible at this time.

The Pollution Prevented

Sitewide non-recycled waste has been reduced 19 % year-to-date from the 2005 baseline. This is equivalent to 483 tons prevented from disposal, with a cost savings of approximately \$27,500.

Powertrain has reduced its non-recycled rate from 17% to 5.6%, a 33% reduction, with continuing focus on reducing oily debris for further waste reduction.

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